

## عنوان مقاله:

Development of a low-cost trackside system for weighing in motion and wheel defects detection

## محل انتشار:

ششمین کنفرانس بین المللی پیشرفتهای اخیر در مهندسی راه آهن (سال: 1398)

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## خلاصه مقاله:

In modern societies, where sustainability, health and comfort are top of priorities, it is critical to devise new strategies to overcome this problem effectively. In line with the expansion of technology, the number of transportation increases, traffic is intense worldwide, and rail traffic is growing all over the world. Therefore, special attention is paid to railway vehicles, infrastructure maintenance and traffic safety. In the case of the interaction between a rolling wheel and a rail, forces arise from physical conditions, metal stress, deformation, noise, etc. In this context, the development of a low-cost trackside monitoring system to reduce maintenance costs and to improve ride quality is necessary. In addition, significant damages that may cause service interruptions or derailments can be prevented by early detection of wheels. In this paper, an application of a wayside monitoring system installed in the Portuguese Northern Railway Line to detect weigh-in-motion (WIM) is presented. The presented WIM system is part of a larger project PEDDIR: the Portuguese acronym for Weighing in motion and wheel defect detection system. From the load measurement imposed by the axle onto the track, integrated into a proper algorithm, train specification can be calculated

## کلمات کلیدی:

Weigh-in-motion systems, Train, Track monitoring

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/982634>

